

Remarks

The non-final Office Action mailed August 31, 2005 rejected claims 1-12, 16-22, 24, 28 and 29, withdrew claims 15, 23, 25 and 26 and objected to claims 13-14 and 27.

The Applicant has hereinabove amended the specification and claims. The title of the application has been amended to better conform to the claimed subject matter. Support for this amendment is found including at page 1, lines 21-23.

Claims 1-2, 5-14, 16-22 and 24 have been amended, claims 15, 23 and 25-29 have been cancelled without prejudice, and new claims 30-36 have been added.

Independent claim 1 now recites a device that generally features "a position detector configured to determine a former stationary position of the transducer based on a latter motion pattern of the actuator obtained from application of a current profile of controlled variable magnitude to the actuator." Support for this is found including at steps 1030 and 1040 of FIG. 10; step 1125 of FIG. 11; current profile 400 of FIG. 4; and in the specification at page 15, lines 23-29 and page 16, lines 19-29. Similar amendments have been provided to independent method claim 11. It is noted that independent claims 1 and 11, as amended, each constitute a generic claim readable on both Species I and II (see Office Action mailed May 25, 2005).

The remaining claims have been amended to correct minor errors, enhance readability and to better conform to the respective independent claims from which these dependent claims depend.

These amendments are proper, do not introduce new matter, and serve to place the application in proper condition for reconsideration and allowance.

Objections to Claims

Claim 7 was objected to on the basis that claim 7 as originally presented was viewed as a method claim which depended from an apparatus claim. This objection is respectfully traversed on the basis that, as originally presented, claim 7 properly set forth structure in terms of programming steps carried out by the recited processor. See e.g., *In re Allapat*, 33 F.3d 1526 (Fed. Cir. 1994) (A general purpose programmable processor in combination with associated programming steps serves to define a special purpose programmable processor structure).

Nevertheless, the Applicant has elected to amend claim 7 and it is believed that these amendments obviate the objection to this claim.

Claim 24 was objected to on the basis that this claim included the copyright symbol "©." The Applicant apologizes for this inadvertent error and has amended the claim to correct the same.

Rejection of Claims Under 35 U.S.C. §102(e)

Claims 1-9, 11-12, 16-22, 24, 28 and 29 were rejected as being anticipated by U.S. Patent No. 6,876,510 issued to Heydt et al. ("Heydt '510"). This rejection is respectfully traversed. The Applicant notes that due to the provisions of §103(c), Heydt '510 is not available for consideration as prior art to the present application under §103(a).

Heydt '510 at least fails to disclose "a position detector configured to determine a former stationary position of the transducer based on a latter motion pattern of the actuator obtained from application of a current profile of controlled variable magnitude to the actuator," as now featured by independent claim 1. Rather, Heydt '510 discloses to energize a voice coil 114

through application of a constant drive voltage thereacross sufficient to induce movement of the actuator 110 toward a parked position. See step 212 of FIG. 4 and col. 5, lines 35-42.

The current is not controlled, but rather is allowed to flow in an uncontrolled manner during the application of this drive voltage. See col. 5, lines 47-49 (“the voltage across the coil 114 is maintained irrespective of the magnitude of current that flows through the coil 114.”); see also the resulting current flows of FIGS. 5 and 6. In this way, the resulting, uncontrolled current can be monitored to detect motion induced berrf and hence, detection of the initial position of the actuator. See col. 5, line 51 to col. 6, line 3.

An alternative embodiment is disclosed by Heydt ‘510 wherein a constant current is applied to the coil 114. See col. 7, lines 24-32. However, this does not disclose a “application of a current profile of controlled variable magnitude to the actuator,” as claimed.

Accordingly, claim 1 defines a patentable improvement over the commonly owned disclosure of Heydt ‘510. Reconsideration and withdrawal of the rejection of claim 1, and for the claims depending therefrom, are respectfully requested on this basis.

As Heydt ‘510 is similarly deficient with regard to the subject matter of amended independent claim 11, reconsideration and withdrawal of the rejection of claim 11, and for the claims depending therefrom, are also respectfully requested.

Rejection of Claim 10 Under 35 U.S.C. §103(a)

Claim 10 was rejected as being obvious over Heydt ‘510 in view of U.S. Patent No. 5,625,514 issued to Kudo (“Kudo ‘514”). This rejection is respectfully traversed. As noted above, Heydt ‘510 is not available as prior art under §103(a). Claim 10 is therefore patentable on the basis that claim 10 depends from a patentable base claim.

New Claims 30-36

Pursuant to 37 CFR 1.111, new claims 30-36 are also believed to be patentable over the art of record.

New claims 30 and 32 depend respectively from independent claims 1 and 11, and generally feature the recited current profile as comprising “a first portion wherein the applied current is sequentially increased from a first value to a maximum value and a second subsequent portion wherein the applied current is sequentially decreased from the maximum value to the first value.” Support for this is found including at step 1125 of FIG. 11, in the profile 400 of FIG. 4, and in the specification at page 16, lines 19-29. New claims 30 and 32 are readable on elected Species II.

New claims 31 and 33 depend respectively from independent claims 1 and 11, and generally feature the recited current profile as comprising “a first portion wherein the applied current substantially maintains a first steady state magnitude and a second subsequent portion wherein the applied current substantially maintains a second steady state magnitude greater than the first steady state magnitude.” Support for this is found including at steps 1030 and 1040 of FIG. 10 and in the specification at page 15, lines 23-29. New claims 31 and 33 are readable on Species I so that, upon allowance of claims 1 and 11, the Applicant is entitled to consideration of these claims.

Upon allowance of dependent claims 30-33, the Applicant respectfully requests that the claims be reordered to group these claims with the respective independent claims from which claims 30-33 depend.

New claim 34 is an independent claim that generally features the subject matter of previously presented claim 10. Claim 34 is therefore believed to define subject matter that is


patentable over the art of record on the basis that the Applicant agrees with the Examiner that Heydt '510 fails to anticipate this subject matter. New claim 35 generally corresponds to the subject matter of claim 9, and new claim 36 generally corresponds to the subject matter of claim 7. New claims 35 and 36 are thus believed to be patentable as depending from a patentable base claim. New claim 34 is a generic claim that reads on both Species I and II, and new claims 35 and 36 at least read on elected Species II.

Conclusion

This is intended to be a complete response to the non-final Office Action mailed August 31, 2005. The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the case.

Should any questions arise concerning this response, the Examiner is invited to contact the below signed Attorney.

Respectfully Submitted,

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